

WHAT IS CLAIMED IS:

1. A control system for the charge coupled device of a scanner, the charge coupled device having ability to process a plurality of primary colors, the charge coupled device at least including a shift register and a transfer gate, the control system

5 comprising:

a transfer controller, coupled to the charge coupled device, used to provide a transfer signal and a charge-shift control signal, wherein the charge coupled device is controlled by the transfer signal, and all charge data with respect to the primary colors are transferred to the shift register through the transfer gate in one operation when the

10 transfer signal is true;

a charge-shift enable generator, coupled to the transfer controller and sequentially issuing a plurality of charge-shift enable signals with respect to the primary colors, according to the transfer signal; and

a combined logic circuit, coupled to the transfer controller, the charge-shift

15 enable generator, and the charge coupling device, wherein according to the charge-shift enable signal and the charge-shift control signal, a plurality of charge-shift clock signals with respect to the primary colors after computation by the combined logic circuit,

wherein each one of the charge-shift clock signals corresponds to one of the primary colors, and the shift register shifts out the corresponding charge data according

20 to each of the charge-shift clock signals.

2. The control system of claim 1, wherein the combined logic circuit includes a plurality of OR gates, and each of the OR gates receives one of the charge-shift enable signals and the charge-shift control signal, and issues one of the charge-shift clock

signals, whereby the shift register sequentially shifts out the charge data of the primary colors with respect to the charge-shift clock signals.

3. The color scanner system of claim 1, wherein the primary colors include red, green, and blue.

5 4. An improved control system for the charge coupled device of a scanner, the charge coupled device having ability to process a plurality of primary colors, the charge coupled device at least including a shift register and a transfer gate, the control system including a transfer controller, the improvement which comprises:

10 a transfer signal and a plurality of charge-shift clock signals are provided, wherein each one of the charge-shift clock signals corresponds to one of the primary colors, the charge coupled device is controlled by the transfer signal, and the transfer gate simultaneously in once transfers a charge data with respect to the primary colors to the shift register when the transfer signal is true, wherein the shift register shifts out the charge data of the primary colors with respect to the charge-shift clock signals, and then
15 sequentially shifts out the another charge data of the primary colors with respect to the charge-shift clock signals.

5. The improved control system of claim 4, wherein the primary colors include red R, Green G, and Blue B.

20 6. A method of controlling a charge coupled device of a scanner, the charge coupled device having ability to process a plurality of primary colors, the control method comprising:

providing a transfer signal;

simultaneously in once transferring a charge data respectively corresponding to the primary colors when the transfer signal is true; and

shifting the charge data corresponding to one of the primary colors, and sequentially shifting charge data corresponding to another one of the primary colors.

7. The control method of claim 6, wherein the charge coupled device at least includes a shift register and a transfer gate, the control method further comprises:

5 transferring the charge data with respect to the primary colors to the shift register through the transfer gate in once operation when the transfer signal is true; and

shifting the charge data of the primary colors with respect to one of the charge-shift clock signals from the shift register according to the charge-shift clock signals, and then sequentially shift the charge data of the primary colors with respect to another one
10 of the charge-shift clock signals from the shift register.

8. The control method of claim 6, further comprising:

providing a plurality of charge-shift control signals; and

sequentially generating a plurality of charge-shift enable signals with respect to the primary colors, when the transfer signal is true.

15 9. The control method of claim 8, wherein after the charge-shift enable signals and the charge-shift control signal are operated with a logic operation, the charge-shift clock signals are sequentially shifted out.

10. The control method of claim 9, wherein the logic operation includes an OR operation.

20 11. The control method of claim 6, wherein the primary colors include red, green, and blue colors.